

WE CLAIM AS OUR INVENTION:

1 – 8 (canceled)

9. (new) A method for controlling a regeneration valve of a fuel vapor retention system for an internal combustion engine, comprising:

sequentially controlling the regeneration valve with different values of a control signal;

regulating a speed and/or an air ratio of the internal combustion engine to predetermined desired values for each value of the control signal and determining the engine intervention required;

deriving a valve position of the regeneration valve from the engine intervention for each value of the control signal; and

storing the individual values of the control signal and the resulting valve position as support points of a valve characteristic.

10. (new) The method as claimed in claim 9, wherein the regeneration valve of the fuel vapor retention system is a tank vent valve for regenerating an activated carbon filter during which the regeneration valve is controlled by the control signal and the control signal corresponds to a designated valve position of the regeneration valve and the correlation between the control signal and the resulting valve position of the regeneration valve is determined during a calibration process:

11. (new) The method as claimed in claim 10, further comprising;
opening the regeneration valve for regenerating the fuel vapor retention system by controlling with a predetermined control signal;

extracting or drawing off fuel vapor from the fuel vapor retention system in the internal combustion engine

compensating for the change in the mixture composition by the extracted or drawn off fuel vapor by means of an engine intervention; and

determining the correlation between the control signal and the resulting valve position of the regeneration valve from the predetermined control signal and the engine intervention required for the compensation.

12. (new) The method as claimed in claim 11, wherein the engine intervention to compensate for the change in the mixture composition includes an ignition angle.

13. (new) The method as claimed in claim 11, wherein the engine intervention with a view to compensating for the change in the mixture composition includes changing the throttle valve position.

14. (new) The method as claimed in claim 11, wherein the speed of the internal combustion engine is measured and regulated to a predetermined desired value by engine intervention while the fuel vapor retention system is being regenerated.

15. (new) The method as claimed in claim 11, wherein the air ratio of the exhaust gas of the internal combustion engine is measured and regulated to a predetermined desired value by engine intervention while the fuel vapor retention system is being regenerated.

16. (new) The method as claimed in claim 11, wherein the engine intervention is determined during the calibration process and is compared to a predetermined limiting value to determine the control signal in the case of which the regeneration valve opens.

17. (new) The method as claimed in claim 11, wherein the valve position of the regeneration valve is determined from the engine intervention required for the compensation.